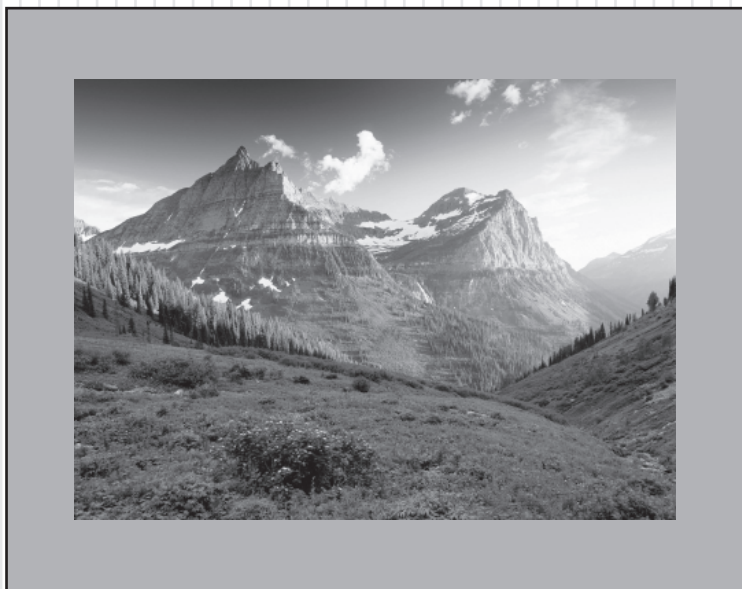


Montana
Comprehensive Assessment
System (MontCAS, Phase 2)
Criterion-Referenced Test (CRT)

COMMON CONSTRUCTED-RESPONSE ITEM RELEASE
MATHEMATICS, GRADE 3

2006



OFFICE OF PUBLIC INSTRUCTION

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Mathematics

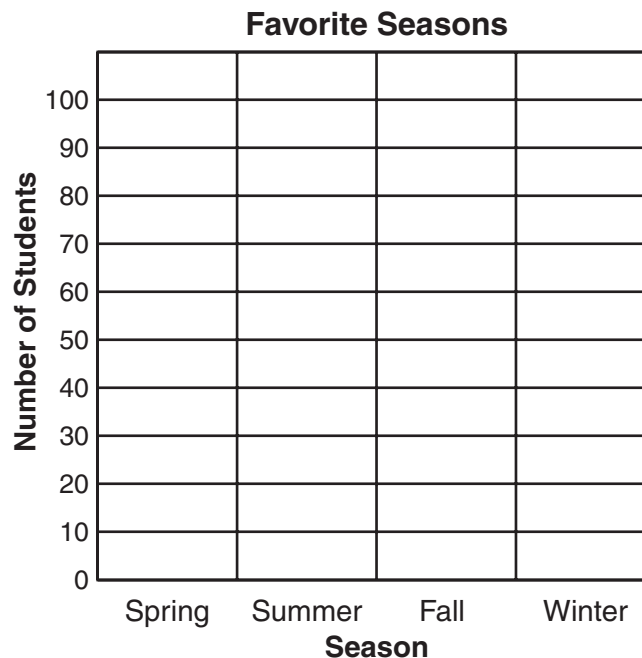
Session 1 (Calculator)

You may use a calculator during this part of the test.

25. Look at the chart below.

Favorite Season	Number of Students
Spring	40
Summer	80
Fall	75
Winter	60

- a. Complete the bar graph below by drawing bars to match the information in the chart.



- b. Using the data from your graph, write one question that can be solved using subtraction. Also write the answer to your question.

Your question:

The answer:

Scoring Guide

Score	Description
4	6 points
3	5 points OR 4 points with points from both parts
2	3 – 4 points
1	1 – 2 points OR Minimal understanding of charts and/or bar graphs
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

Scoring Notes

Part a: (maximum 4 points)

1 point for **each** bar correctly drawn (for Fall, credit is given for bar that is drawn anywhere between 70 and 80)

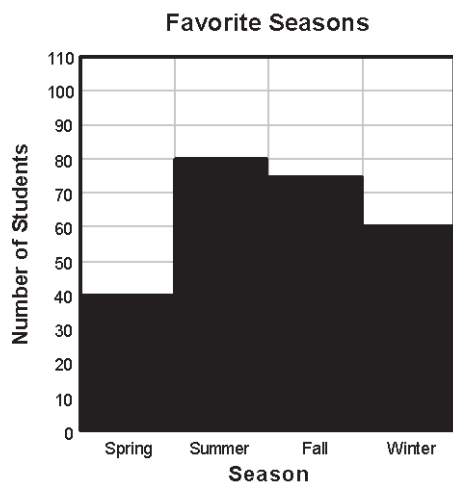
Part b: (maximum 2 points)

2 points for a question using data from the graph that can be solved by subtracting and correct answer
OR

1 point for an appropriate question based on the data in the graph/chart with incorrect or no answer
or
for a correct answer to an inappropriate question (e.g., not involving subtraction or number sentence with subtraction based on the numbers in the graph/chart)

Note: 0 points for a question that does not involve data in the graph/chart, whether or not the question is answered correctly

Sample Response for part a:



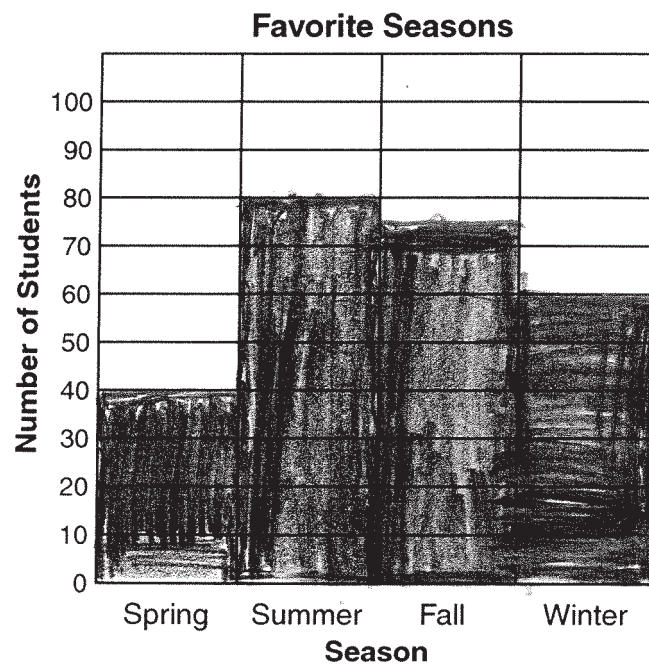
Score Point 4

Sample 1

Look at the chart below.

Favorite Season	Number of Students
Spring	40
Summer	80
Fall	75
Winter	60

- a. Complete the bar graph below by drawing bars to match the information in the chart.



- b. Using the data from your graph on page 8, write one question that can be solved using subtraction. Also write the answer to your question.

Your question: *How many more kids like Fall than Spring? $75 - 40 = 35$ kids.*

The answer: *35 kids*

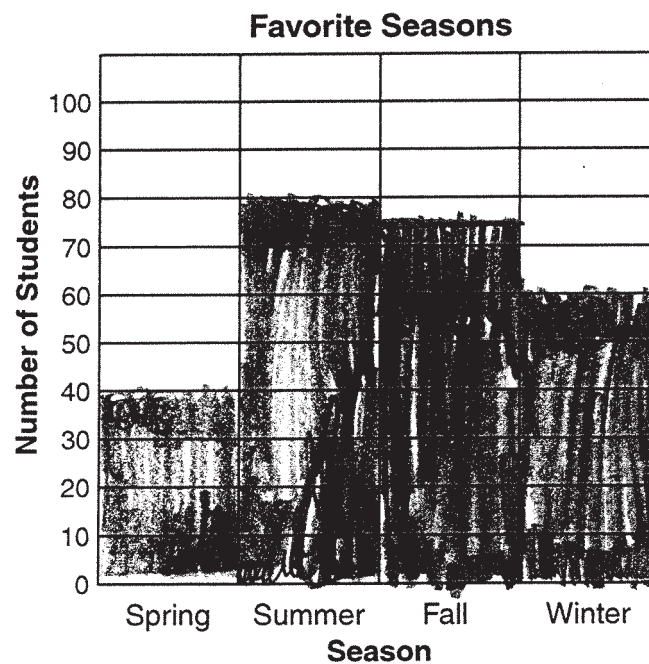
Score Point 4

Sample 2

Look at the chart below.

Favorite Season	Number of Students
Spring	40
Summer	80
Fall	75
Winter	60

- a. Complete the bar graph below by drawing bars to match the information in the chart.



- b. Using the data from your graph on page 8, write one question that can be solved using subtraction. Also write the answer to your question.

Your question: How many more students like the season Summer better than fall.

The answer: $80 - 75 = 5$

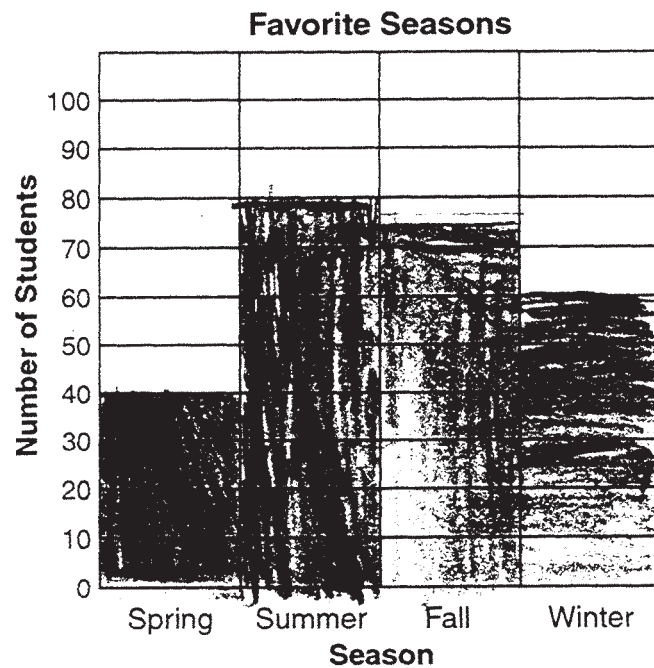
Score Point 3

Sample 1

Look at the chart below.

Favorite Season	Number of Students
Spring	40
Summer	80
Fall	75
Winter	60

- a. Complete the bar graph below by drawing bars to match the information in the chart.



- b. Using the data from your graph on page 8, write one question that can be solved using subtraction. Also write the answer to your question.

Your question: *How many more days are in Summer than Spring?*

The answer: *40 more days,*

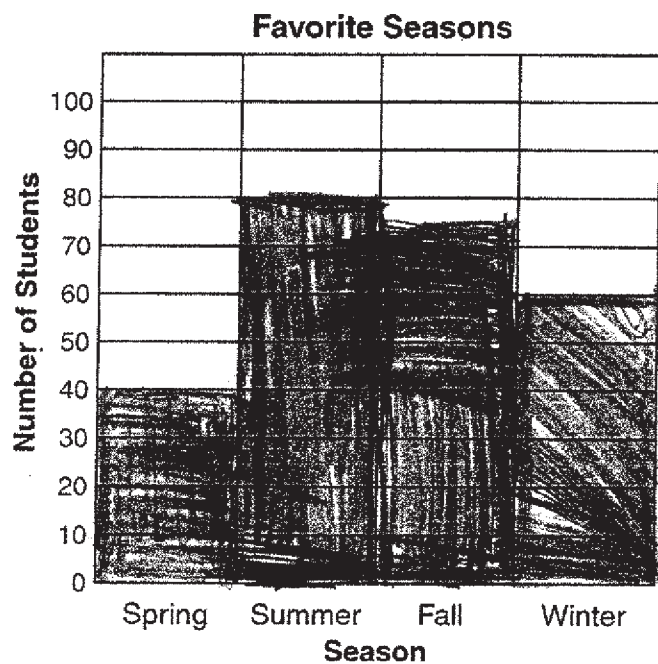
Score Point 3

Sample 2

Look at the chart below.

Favorite Season	Number of Students
Spring	40
Summer	80
Fall	75
Winter	60

- a. Complete the bar graph below by drawing bars to match the information in the chart.



- b. Using the data from your graph on page 8, write one question that can be solved using subtraction. Also write the answer to your question.

Your question: $80 - 75 = ?$

The answer: 5

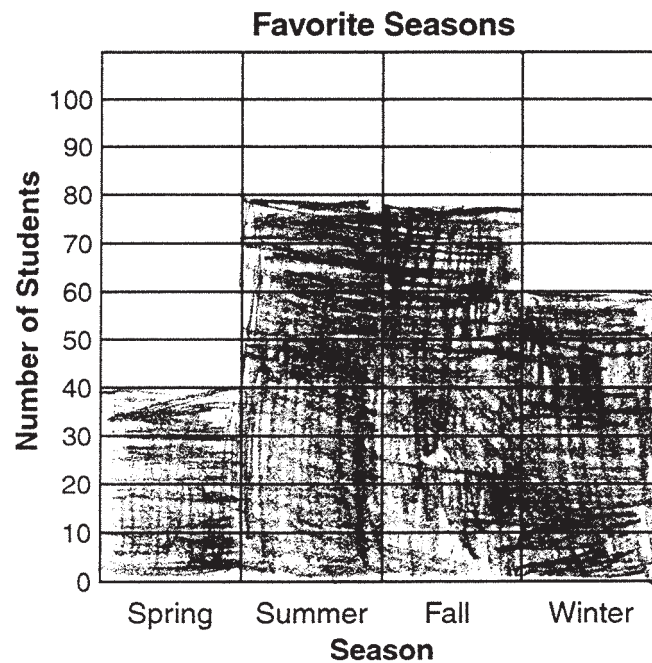
Score Point 2

Sample 1

Look at the chart below.

Favorite Season	Number of Students
Spring	40
Summer	80
Fall	75
Winter	60

- a. Complete the bar graph below by drawing bars to match the information in the chart.



- b. Using the data from your graph on page 8, write one question that can be solved using subtraction. Also write the answer to your question.

Your question:

Season	Number of
Spring	40
Summer	50

The answer:

50
40
30
20
10

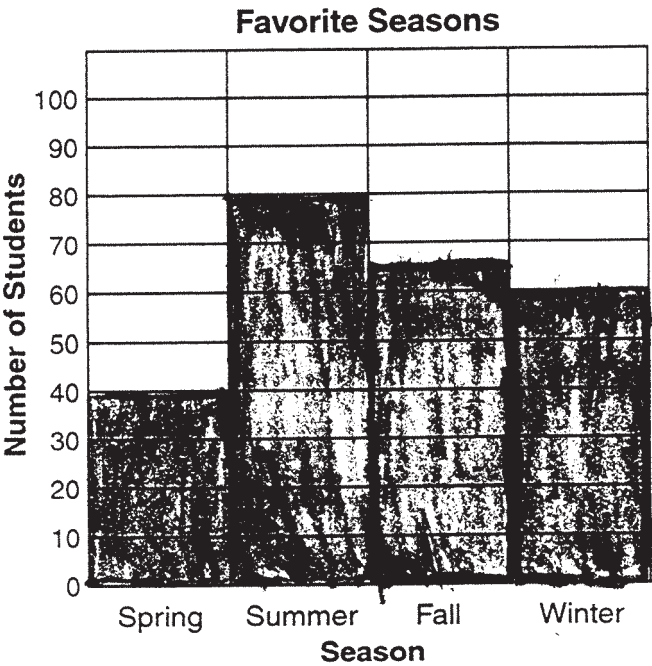
Score Point 2

Sample 2

Look at the chart below.

Favorite Season	Number of Students
Spring	40
Summer	80
Fall	75
Winter	60

- a. Complete the bar graph below by drawing bars to match the information in the chart.



- b. Using the data from your graph on page 8, write one question that can be solved using subtraction. Also write the answer to your question.

Your question: Yesterday I caught fifty baseballs and
lost twenty, so how many balls were
there.

The answer:

$$\begin{array}{r} 50 \\ -20 \\ \hline 30 \end{array} \text{ base balls}$$

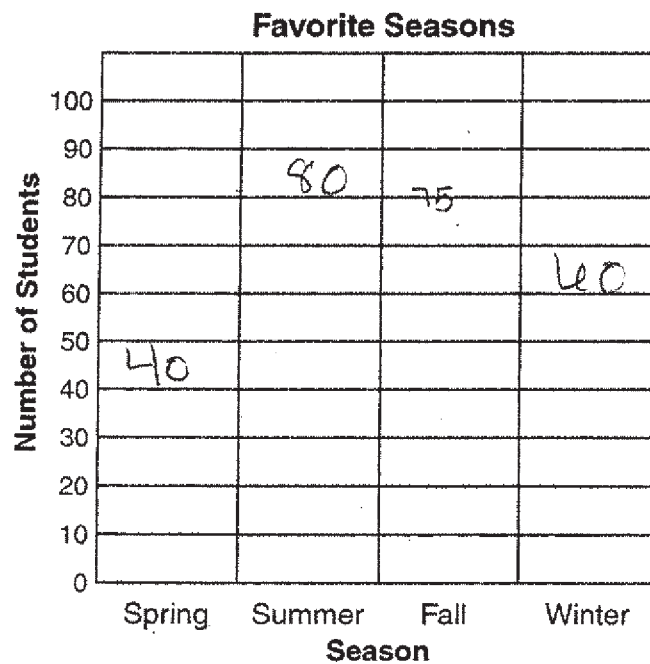
Score Point 1

Sample 1

Look at the chart below.

Favorite Season	Number of Students
Spring	40
Summer	80
Fall	75
Winter	60

- a. Complete the bar graph below by drawing bars to match the information in the chart.



- b. Using the data from your graph on page 8, write one question that can be solved using subtraction. Also write the answer to your question.

Your question: How much kids liked summer
more then spring

The answer: 40

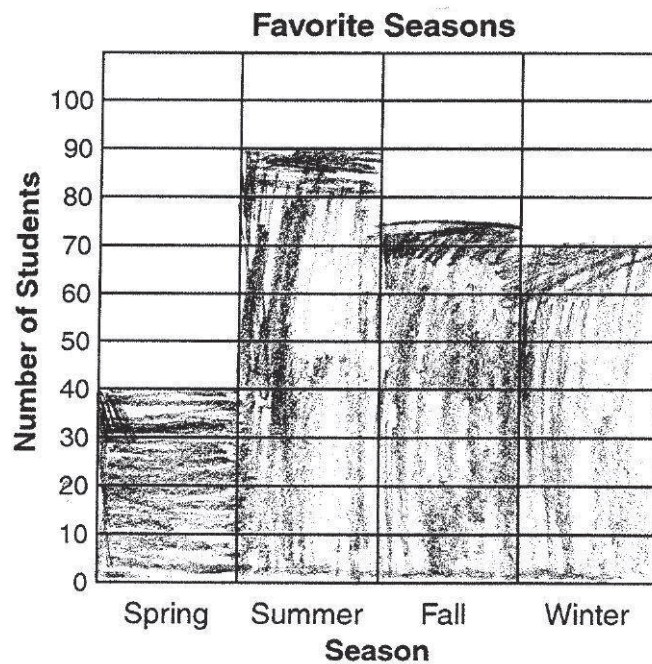
Score Point 1

Sample 2

Look at the chart below.

Favorite Season	Number of Students
Spring	40
Summer	80
Fall	75
Winter	60

- a. Complete the bar graph below by drawing bars to match the information in the chart.



- b. Using the data from your graph on page 8, write one question that can be solved using subtraction. Also write the answer to your question.

Your question: $40 - 80 - 75 - 60 =$

The answer: 175

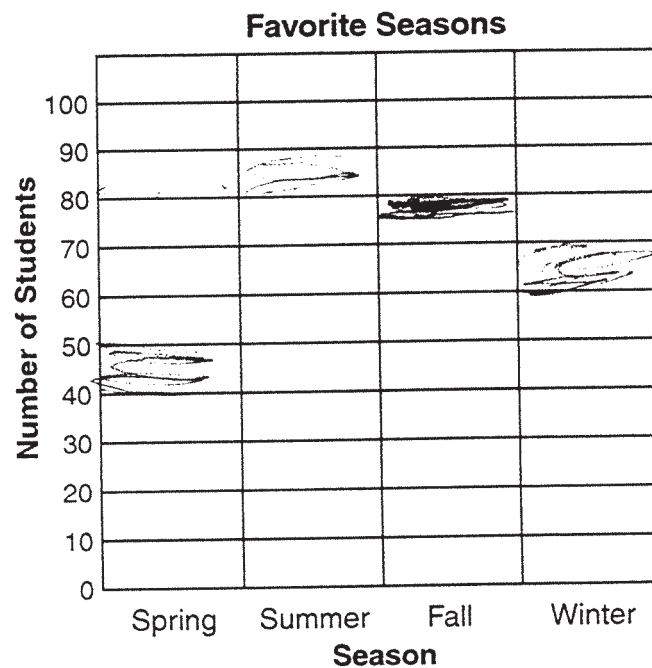
Score Point 0

Sample 1

Look at the chart below.

Favorite Season	Number of Students
Spring	40
Summer	80
Fall	75
Winter	60

- a. Complete the bar graph below by drawing bars to match the information in the chart.



- b. Using the data from your graph on page 8, write one question that can be solved using subtraction. Also write the answer to your question.

Your question:

The answer:

$$40 + 6 = 100$$
$$75 + 80 = 155$$

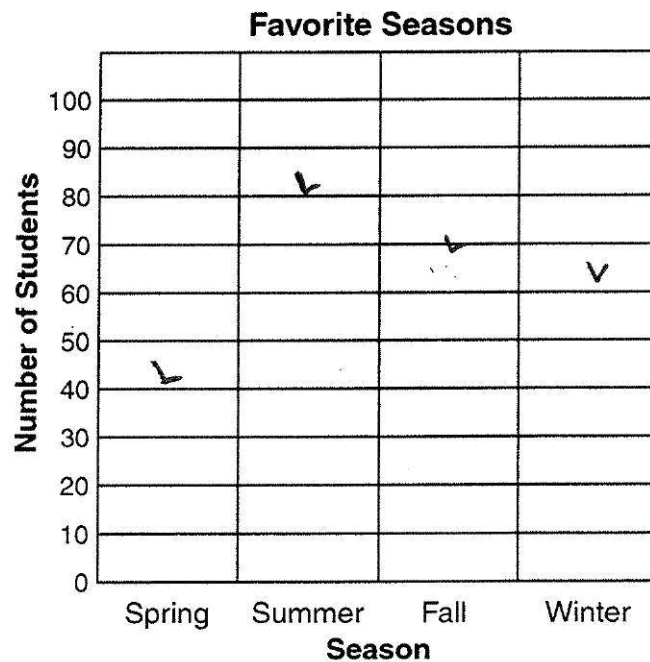
Score Point 0

Sample 2

Look at the chart below.

Favorite Season	Number of Students
Spring	40
Summer	80
Fall	75
Winter	60

- a. Complete the bar graph below by drawing bars to match the information in the chart.



- b. Using the data from your graph on page 8, write one question that can be solved using subtraction. Also write the answer to your question.

Your question:

The answer:





Mathematics

Session 3 (No Calculator)

You may NOT use a calculator during this part of the test.

68. Jack is earning money to buy a book. The chart shows what Jack has earned so far.

a. Fill in the chart to show the amount of money Jack earned each day.

Day	Coins Earned	Amount of Money
Monday		75¢
Tuesday		
Friday		
Saturday		

b. The book Jack wants costs \$5.00. How much more money does Jack need?

Write your answer here. _____

Show or explain all the steps you used to find your answer.

Scoring Guide

Score	Description
4	6 points
3	5 points OR 4 points with 2 points in each part
2	3 – 4 points OR 2 points with at least 1 point in Part b
1	1 – 2 points OR Minimal understanding of solving two-step problems with addition and/or subtraction
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

Scoring Notes

Part a: (maximum 3 points)

1 point for **each** correct answer (25¢, 50¢, 75¢)

Part b: 1 point for correct answer (\$2.75, 275¢, or 2.75)

AND

2 points for complete explanation or strategies (might include computation error(s))

OR

1 point for partial explanation or strategies (might include computation error(s))

Complete explanation includes:

- correct strategy for how much money Jack has (e.g., $.75 + .25 + .50 + .75 = 2.25$)
- correct calculation for money Jack has (2.25)
- correct strategy for how much Jack needs (e.g., $5.00 - 2.25 = 2.75$)





Notes

- Scorers should read along with student. If student makes an error in a previous part and subsequent answers are correct based on earlier error, student should not be penalized again.
- Do not award a score of 4 if the student does not indicate ¢ in any of the Part a responses or if student uses incorrect monetary notation that cannot be misinterpreted as a different, incorrect answer. Otherwise, do not penalize.

Score Point 4

Sample 1

a. Fill in the chart to show the amount of money Jack earned each day.

Day	Coins Earned	Amount of Money
Monday		75¢
Tuesday		25¢
Friday		50¢
Saturday		75¢

b. The book Jack wants costs \$5.00 including tax. How much more money does Jack need?

Write your answer here. 2.75





Show or explain all the steps you used to find your answer.

$75 + 75 = 150 + 25 + 50 = 2.25$
 I added
 subtracted 5.00
 just shure, $- 2.25$
 $\begin{array}{r} 2.25 \\ + 2.75 \\ \hline 5.00 \end{array}$
 Then I and added to make

Score Point 4

Sample 2

a. Fill in the chart to show the amount of money Jack earned each day.

Day	Coins Earned	Amount of Money
Monday		75¢
Tuesday		25¢
Friday		50¢
Saturday		75¢

b. The book Jack wants costs \$5.00 including tax. How much more money does Jack need?

Write your answer here. \$2.75

Show or explain all the steps you used to find your answer/





$$\begin{array}{r}
 4.90 \\
 - 2.25 \\
 \hline
 2.75
 \end{array}$$

$$\begin{array}{r}
 8.75 \\
 - 3.50 \\
 \hline
 5.25 \\
 - 2.50 \\
 \hline
 2.75
 \end{array}$$

Score Point 3

Sample 1

a. Fill in the chart to show the amount of money Jack earned each day.

Day	Coins Earned	Amount of Money
Monday		75¢
Tuesday		25¢
Friday		50¢
Saturday		75¢

b. The book Jack wants costs \$5.00 including tax. How much more money does Jack need?

Write your answer here \$2.50

Show or explain all the steps you used to find your answer.





$$75¢ + 25¢ + 50¢ + 75¢ = \$2.50$$

$$\$5.00 - \$2.50 = \$2.50$$

Score Point 3

Sample 2

a. Fill in the chart to show the amount of money Jack earned each day.

Day	Coins Earned	Amount of Money
Monday		75¢
Tuesday		25¢
Friday		50¢
Saturday		75¢

b. The book Jack wants costs \$5.00 including tax. How much more money does Jack need?

Write your answer here. \$2.75





Show or explain all the steps you used to find your answer.

\$2.25

Score Point 2

Sample 1

a. Fill in the chart to show the amount of money Jack earned each day.

Day	Coins Earned	Amount of Money
Monday		75¢
Tuesday		25¢
Friday		50¢
Saturday		75¢

b. The book Jack wants costs \$5.00 including tax. How much more money does Jack need?





Write your answer here. \$2.25¢

Show or explain all the steps you used to find your answer.

Score Point 2

Sample 2

a. Fill in the chart to show the amount of money Jack earned each day.

Day	Coins Earned	Amount of Money
Monday		75¢
Tuesday		
Friday		
Saturday		

b. The book Jack wants costs \$5.00 including tax. How much more money does Jack need?

Write your answer here. \$2.75





Show or explain all the steps you used to find your answer.

I counted the and he had \$2.25 \$
you count in your head
you get the answer.

Score Point 1

Sample 1

a. Fill in the chart to show the amount of money Jack earned each day.

Day	Coins Earned	Amount of Money
Monday		75¢
Tuesday		30¢
Friday		50¢
Saturday		80¢

b. The book Jack wants costs \$5.00 including tax. How much more money does Jack need?

Write your answer here. 16 00

Show or explain all the steps you used to find your answer.

Adding





30
 50
 80

 16.00

Score Point 1

Sample 2

a. Fill in the chart to show the amount of money Jack earned each day.

Day	Coins Earned	Amount of Money
Monday		75¢
Tuesday		70¢
Friday		50¢
Saturday		35¢

b. The book Jack wants costs \$5.00 including tax. How much more money does Jack need?

Write your answer here. 63





Show or explain all the steps you used to find your answer.

100
30
63

Score Point 0

Sample 1

a. Fill in the chart to show the amount of money Jack earned each day.

Day	Coins Earned	Amount of Money
Monday		75¢
Tuesday		
Friday		
Saturday		

b. The book Jack wants costs \$5.00 including tax. How much more money does Jack need?





Write your answer here. 3.00 \$

Show or explain all the steps you used to find your answer.

Score Point 0

Sample 2

a. Fill in the chart to show the amount of money Jack earned each day.

Day	Coins Earned	Amount of Money
Monday		75¢
Tuesday		24¢
Friday		25¢
Saturday		65¢

b. The book Jack wants costs \$5.00 including tax. How much more money does Jack need?

Write your answer here.

\$18.07 + ⁷⁵₂₄₂₅₆₅

Show or explain all the steps you used to find your answer.

$$\begin{array}{r}
 75 \\
 24 \\
 25 \\
 65 \\
 \hline
 18.9
 \end{array}$$